



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,608	11/26/2003	Charles L. Tilton	ISOT-023	7907

7590 06/07/2005

Michael S. Neustel
Suite No. 4
2534 South University Drive
Fargo, ND 58103

EXAMINER

DOERRLER, WILLIAM CHARLES

ART UNIT	PAPER NUMBER
----------	--------------

3744

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/723,608	Applicant(s) TILTON ET AL.	
	Examiner William C. Doerrler	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 1-9 and 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5-9-2005.

Claim Objections

Claims 17 and 18 are identical. One of the claims should be cancelled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hall.

Hall shows a spray unit comprising a first portion having a surface and at least one orifice (12) and a second surface (5), which is surrounded by the first surface and extends closer to an object being sprayed. In claim 10, “upon at least one electronic device” and “towards at least one electronic device” are seen as intended use and functional language, respectively. The device of Hall is inherently capable of spraying an electronic device, so the intended use and functional language is seen as being met by the structure of Hall. The same is true of the language of claim 16. It is unclear from

the claims if the second fluid flow is necessarily a different fluid than the first fluid, or merely a different flow of the same fluid.

Claims 10-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Malmquist.

Malmquist shows a spray unit comprising a first portion having a surface and at least one orifice (12) and a second surface (5), which is surrounded by the first surface and extends closer to an object being sprayed. In claim 10, "upon at least one electronic device" and "towards at least one electronic device" are seen as intended use and functional language, respectively. The device of Malmquist is inherently capable of spraying an electronic device, so the intended use and functional language is seen as being met by the structure of Malmquist. The same is true of the language of claim 16. It is unclear from the claims if the second fluid flow is necessarily a different fluid than the first fluid, or merely a different flow of the same fluid.

Claims 10-19 are rejected under 35 U.S.C. 102(b) as being anticipated by any one of Thomson, Wentworth or Hawks.

Thomson, Wentworth and Hawks, each show a spray unit comprising a first portion having a surface and at least one orifice (12) and a second surface (5), which is surrounded by the first surface and extends closer to an object being sprayed. In claim 10, "upon at least one electronic device" and "towards at least one electronic device" are seen as intended use and functional language, respectively. The device of any of the three above references is inherently capable of spraying an electronic device, so the intended use and functional language is seen as being met by the structure of the

references. The same is true of the language of claim 16. It is unclear from the claims if the second fluid flow is necessarily a different fluid than the first fluid, or merely a different flow of the same fluid.

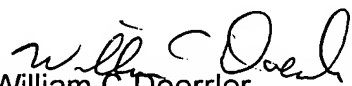
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Novotny, Limper-Brenner et al, both Patel patents, Cole et al, Tilton et al and Przilas et al show spray cooling systems for electronics.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Doerrler whose telephone number is (571) 272-4807. The examiner can normally be reached on Monday-Friday 6:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William C Doerrler
Primary Examiner
Art Unit 3744

WCD